

What is claimed is:

1. A *B. oleracea* plant resistant to clubroot disease, wherein the resistance to clubroot is monogenic and dominant.
2. The plant according to claim 1, wherein said *B. oleracea* plant is rated at level 2 or less in a test for the disease having a 1-9 scale or at a level 1 or less in a test for the disease having a 0-5 scale.
3. The plant according to claim 1, wherein said *B. oleracea* plant is rated at level 1 in a test for the disease having a 1-9 scale or at a level 0 in a test for the disease having a 0-5 scale.
4. The plant according to claim 1, wherein said *B. oleracea* plant is broccoli, white cabbage, cauliflower, Brussels sprouts, Borecole, Savoy, or red cabbage.
5. The plant according to claim 1, wherein said resistance is linked to a molecular marker obtainable by PCR amplification.
6. The plant according to claim 1, wherein said resistance is linked to a molecular marker obtainable by PCR amplification using primer O20 (SEQ ID NO:1) or primer Y13 (SEQ ID NO:2).
7. The plant according to claim 5, wherein said resistance is within 10 cM of said molecular marker.
8. The plant according to claim 5, wherein said resistance is within 6 cM of said molecular marker.
9. The plant according to claim 1, wherein said resistance is obtainable from a clubroot resistant *B. rapa* plant.

10. The plant according to claim 1, wherein said resistance is obtainable from Chinese cabbage F1 hybrid Parkin.

11. A *B. oleracea* plant comprising a locus conferring resistance to clubroot disease, wherein said resistance is monogenic and dominant.

12. A *B. oleracea* plant comprising a resistance to clubroot disease, wherein

- a) when said plant is homozygous for said resistance and said plant homozygous for said resistance is crossed with a “tester” plant homozygous for a monogenic and dominant resistance to clubroot disease, plants of the first generation progeny resulting from said cross show a 1:0 segregation for resistance to clubroot disease, and
- b) when said plants of said first generation progeny are self-pollinated, plants of the resulting second generation progeny shows a 1:0 segregation for resistance to clubroot disease.

13. The plant according to claim 12, wherein said “tester” plant is a plant derived from line CFL667 deposited with NCIMB under accession number NCIMB 41134 and comprising the monogenic and dominant resistance to clubroot comprised in said line CFL667, or a progeny or ancestor of said line CFL667 comprising the monogenic and dominant resistance to clubroot comprised in said line CFL667.

14. A *B. oleracea* plant comprising a resistance to clubroot disease, wherein when said plant is heterozygous for said resistance and said plant heterozygous for said resistance is crossed with a “tester” plant heterozygous for a monogenic and dominant resistance to clubroot, plants of the first generation progeny resulting from said cross show a 3:1 segregation for resistance to clubroot disease.

15. The plant according to claim 14, wherein when said plants of said first generation progeny are further crossed with said plant heterozygous for said resistance, plants of the resulting second generation progeny shows a 5:1 segregation for resistance to clubroot disease.

16. The plant according to claim 14 or 15, wherein said "tester" plant is a plant of line CFL667 deposited with NCIMB under accession number NCIMB 41134, or a progeny or ancestor of said line CFL667 comprising the monogenic and dominant resistance to clubroot comprised in said line CFL667, or a plant derived from said line CFL667 deposited with NCIMB under accession number NCIMB 41134 and comprising the monogenic and dominant resistance to clubroot comprised in said line CFL667.

17. The plant according to any one of claims 1 to 16, wherein said *B. oleracea* plant is homozygous for said resistance.

18. The plant according to any one of claims 1 to 16, wherein said *B. oleracea* plant is heterozygous for said resistance.

19. The plant according to any one of claims 1 to 16, wherein said *B. oleracea* plant is an inbred or a dihaploid.

20. The plant according to any one of claims 1 to 16, wherein said *B. oleracea* plant is a hybrid.

21. The plant according to claim 19 or 20, wherein said *B. oleracea* plant is cytoplasmic male sterile.

22. Seed of a plant according to any one of claims 1 to 21.

23. Fruit or part of a plant according to any one of claims 1 to 21.

24. Part of a plant according to any one of claims 1 to 21, wherein said part is pollen, ovule or embryo.

25. Use of a monogenic and dominant resistance to clubroot to confer a *B. oleracea* plant resistance to said disease.

26. Use of claim 25, wherein said resistance is obtainable from Chinese cabbage F1 hybrid Parkin.

27. A method for producing a *B. oleracea* plant comprising a monogenic and dominant resistance to clubroot comprising the steps of:

- a) obtaining a *B. rapa* plant resistant to clubroot;
- b) crossing said *B. rapa* plant with a *B. oleracea* plant,
- c) rescuing embryos resulting from the cross of step b);
- d) regenerating a plant from a embryo of step c);
- e) selecting a plant of step d) that is resistant to clubroot;
- f) back-crossing a plant resulting from step e) with a *B. oleracea* plant.

28. The method according to claim 27, further comprising introgressing the resistance into an elite *B. oleracea* inbred.

29. The method according to claim 28, further comprising crossing said inbred to another *B. oleracea* inbred to produce a hybrid.

30. A *B. oleracea* plant obtainable by the method of any one of claims 27 to 29.

31. A method for transferring a monogenic and dominant resistance to clubroot to a *B. oleracea* plant susceptible or less resistant to the disease comprising the steps of:

- a) obtaining a *B. oleracea* plant comprising a monogenic and dominant resistance to clubroot;
- b) crossing said *B. oleracea* plant of step a) with a *B. oleracea* plant susceptible or less resistant to clubroot;
- c) selecting a plant from the cross of step b) that is resistant to clubroot.

32. The method according to claim 31, further comprising backcrossing said resistance into said *B. oleracea* plant susceptible or less resistant to clubroot.
33. A DNA fragment amplified from a Brassica genome, wherein said DNA fragment is approximately 400 bp long and comprises SEQ ID NO:1.
34. A DNA fragment amplified from a Brassica genome, wherein said DNA fragment is approximately 640 bp long and comprises SEQ ID NO:2.
35. A DNA fragment according to claim 33 or 34, wherein said DNA fragment is indicative of the presence of a dominant and monogenic resistance to clubroot in a Brassica plant.
36. Use of a DNA fragment according to claim 33 or 34 to identify a Brassica plant that is resistant to clubroot.
37. Use of primer O20 (SEQ ID NO:1) to detect a DNA fragment of approximately 400 bp in a Brassica genome.
38. Use of primer Y13 (SEQ ID NO:2) to detect a DNA fragment of approximately 640 bp in a Brassica genome.
39. Use of a primer O20 or Y13 to identify a Brassica plant resistant to clubroot.
40. Use of any one of claims 36-39, wherein said Brassica plant is *B. oleracea*.
41. A kit for detecting a monogenic and dominant resistance to clubroot in a *B. oleracea* plant comprising an oligonucleotide of set forth in SEQ ID NO:1 or SEQ ID NO:2.
42. A method for transferring a monogenic and dominant resistance to clubroot to a *B. oleracea* plant susceptible or less resistant to the disease comprising the steps of:

- a) obtaining a *B. oleracea* plant comprising a monogenic and dominant resistance to clubroot;
 - b) crossing said *B. oleracea* plant of step a) with a *B. oleracea* plant susceptible or less resistant to clubroot;
 - c) selecting a plant comprising a DNA fragment obtainable by PCR amplification using primer O20 (SEQ ID NO:1) or primer Y13 (SEQ ID NO:2);
- wherein said plant of step c) is resistant to clubroot.

43. The method according to claim 42, further comprising backcrossing said resistance into said *B. oleracea* plant susceptible or less resistant to clubroot.

44. A method of identifying a *B. oleracea* plant resistant to clubroot comprising the steps of:

- a) obtaining a sample from a *B. oleracea* plant;
- b) detecting in said sample a DNA fragment obtainable by PCR amplification using primer O20 (SEQ ID NO:1) or primer Y13 (SEQ ID NO:2),

wherein said *B. oleracea* plant of step b) is resistant to clubroot.

45. A method of selecting a *B. oleracea* plant resistant to clubroot from a population of *B. oleracea* plants comprising the steps of:

- a) providing a population of *B. oleracea* plants;
- b) obtaining a sample of a plant of said population;
- c) detecting in said sample a DNA fragment obtainable by PCR amplification using primer O20 (SEQ ID NO:1) or primer Y13 (SEQ ID NO:2),

wherein said *B. oleracea* plant of step b) is resistant to clubroot.